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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WEIHAI CHEN

Appeal 2009-007024
Application 09/989,474
Technology Center 2400

Before: JAMES D. THOMAS, STEPHEN C. SIU, and
DEBRA K. STEPHENS, *Administrative Patent Judges*.

STEPHENS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

¹ The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the “MAIL DATE” (paper delivery mode) or the “NOTIFICATION DATE” (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

Appellant appeals under 35 U.S.C. § 134(a) (2002) from a final rejection of claims 1-19. We have jurisdiction under 35 U.S.C. § 6(b) (2008).

We AFFIRM.

Introduction

According to Appellant, the invention relates to computer systems. More particularly, the present invention concerns distributed networks, and methods and systems for discovering resources (e.g. devices) in distributed networks. (Spec. 1).

STATEMENT OF THE CASE

Exemplary Claim(s)

Claim 1 is an exemplary claim and is reproduced below:

1. A method for performing resource discovery in a network having multiple subnets and wherein inter-subnet discovery agents installed on nodes within the multiple subnets support inter-subnet resource discovery, the method comprising:

designating, within a first subnet, a first inter-subnet discovery agent on a first node as an active discovery agent;

discovering, by the first inter-subnet discovery agent, active discovery agents on neighboring subnets in the network;
and

propagating, by the first node containing the active discovery agent, an inter-subnet resource discovery search request to the active discovery agents on neighboring subnets.

Prior Art

Das	US 2002/0026527 A1	Feb. 28, 2002
Matheny	US 2002/0161883 A1	Oct. 31, 2002
Schlonski	US 2002/0196451 A1	Dec. 26, 2002
Dowling	US 6,636,499 B1	Oct. 21, 2003
Branson	6,865,728 B1	Mar. 8, 2005

Rejections

Claims 1-2, 4-5, 7-8, 11-12, 14-15, 17-18, 24-25, 27-28 and 30-31 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Matheny. (Ans. 3).

Claims 3, 6, 13, 16, 26, and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matheny, and Schlonski. (Ans. 5).

Claims 9, 10, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Matheny, and Dowling. (Ans. 6).

Claim 21 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Branson, and Dowling. (Ans. 8).

Claims 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Branson, Dowling, and Das. (Ans. 9).

GROUPING OF CLAIMS

(1) Appellant argues claims 1, 2, 4, 5, 7, and 8 as a group on the basis of claim 1 (Br., 12-18). Appellant argues claims 11, 12, 14, 15, 17, and 18 as a group on the basis of independent claim 11 presenting arguments presented for claim 1 (*Id.* at 18-21). Appellant argues claims 24, 25, 27, 28,

30, and 31 as a group on the basis of claim 24 presenting arguments presented for claim 1 (*Id.* at 21-22). We select independent claim 1 as the representative claim. We will, therefore, treat claims 2, 4, 5, 7, 8, 11, 12, 14, 15, 17, 18, 24, 25, 27, 28, 30, and 31 as standing or falling with representative claim 1.

(2) Appellant argues claims 3, 6, 13, 16, 26, and 29 as a group (Br. 22-25). Claims 3, 6, 13, 16, 26, and 29 will stand or fall together accordingly.

(3) Appellant argues claims 9, 10, 19, and 20, as a group (*Id.* at 25-27). Claims 9, 10, 19 and 20 will stand or fall together accordingly.

(4) Appellant argues independent claim 21 separately. (*Id.* at 27-32). We will consider independent claim 21 separately as set forth by Appellant.

(5) Appellant argues claims 22 and 23 as a group (*Id.* at 32-34). Claims 22 and 23 will stand or fall together accordingly.

We accept Appellant's grouping of the claims. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE 1

*35 U.S.C. § 102(e): claims 1, 2, 4, 5, 7, 8, 11, 12, 14, 15,
17, 18, 24, 25, 27, 28, 30, and 31*

Appellant asserts that the invention as recited is not anticipated by Matheny because Matheny does not anticipate all of the elements of claim 1. (Br. 12-18). Indeed, Appellant contends that Matheny does not disclose any of the limitations, i.e., “designating within a first subnet, a first inter-subnet discovery agent on a first node as an active discovery agent;” “discovering, by the first inter-subnet discovery agent, active discovery agents on

neighboring subnets in the network;” and “propagating, by the first node containing the active discovery agent, an inter-subnet resource discovery search request to the active discovery agents on neighboring subnets,” (Br. 12-20) as recited in claim 1 and commensurately recited in claims 11 and 24.

Appellant specifically asserts that the discovery agents of Matheny do not perform the functions of the discovery agents of Appellant’s claims (Br. 14-16). Appellant further argues Matheny discloses two different entities - a network manager, and discovery agents - and thus the network manager is not a discovery agent (Br. 14-17). Moreover, Appellant contends Matheny does not disclose that a discovery agent within each subnet is active (Br. 16).

The Examiner finds the network manager is the designated first inter-subnet resource discovery agent which is an active agent “because the network manager initiates and coordinates the discovery operations, and it further discovers and/or identifies the discovery agents on the neighboring subnets, e.g. pg. 2 [0019]” (Ans. 12, 13, emphasis original). The Examiner further finds the network manager propagates an inter-subnet resource discovery search request to the active discovery agents since Matheny calls the discovery agents which collect data from discovered devices (Ans. 16).

Issue 1: Has the Examiner erred in concluding that Matheny anticipates “designating within a first subnet, a first inter-subnet discovery agent on a first node as an active discovery agent;” “discovering, by the first inter-subnet discovery agent, active discovery agents on neighboring subnets in the network;” and “propagating, by the first node containing the active

discovery agent, an inter-subnet resource discovery search request to the active discovery agents on neighboring subnets,” as recited in claim 1?

FINDINGS OF FACT (FF)

Appellant’ Invention

(1) An active simple discovery agent (ASDA) is a “specially designated SDA [(simple discovery agent)], established in each subnet, for discovering other ASDAs on other subnets of a network” (Spec. 7, ll. 6-7).

(2) Appellant does not define “simple discovery agent” or “active discovery agent.”

Matheny

(3) Matheny teaches a method and system for a network management system that performs a coordinated discovery operation on devices in a network, having smaller subnets, using a number of discovery and aggregator agents (Abstract and pg. 1, [0010]).

(4) The networked computer system 100 includes a network management system 102 that includes a network manager 104 (pg. 1, [0008] and Fig. 1). The network manager 104 includes software for initiating and coordinating network discovery operations on devices in the network using a number of different agents (pg. 1, ¶ [0010]). More than one network manager may be allocated to the network 100. (pg. 1, ¶ [0010]).

(5) “The network manager 104 loops through files in a command directory, searching for XML files that match the address ranges or subnets identified for discovery (block 304)... The network

manager may then create a command file for each identified discovery agent.” (Pg. 2, [0019] and Fig 3).

(6) “The discovery agent 106 collects data from each device that it discovers (block 310), and places the collected data in a file created for that device in the discovery directory (block 312).” (Pg. 2, [0020] and Fig. 3).

Definitions

(7) “Active” is defined as “characterized by action rather than by contemplation or speculation” *Merriam-Webster’s Collegiate Dictionary* 12 (Tenth edition 2000).

(8) “Agent” is defined as something that produces or is capable of producing an effect” *Merriam-Webster’s Collegiate Dictionary* 22 (Tenth edition 2000).

ANALYSIS

We adopt the Examiner’s findings in the Answer as our own. Our discussions here will be limited to the following points of emphasis.

Appellant does not define agent, discovery agent, or active discovery agent. To determine whether Matheny describes “a first inter-subnet discovery agent” or “active discovery agents” as recited in claim 1, we give claim 1 its broadest reasonable interpretation consistent with the Specification. *See In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004). However, we will not read limitations from the Specification into the claims. *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

Moreover, Appellant’s argument that we should interpret terms based on the Matheny reference’s use of the terms is unpersuasive. We look at

Appellant's use of the terms and absent explicit definition, as what one of ordinary skill in the art at the time of the invention would have interpreted the term to have meant, consistent with the Specification.

We find that the network manager of Matheny is part of a network system that has subnets (FF 3). We also find the network manager is characterized by action (as it performs various operations) and is capable of producing an effect (i.e., initiating and coordinating network discovery operations) (FF 4) and therefore, is an active discovery agent. Accordingly, we agree with the Examiner's findings (Ans. 12-13) that the network manager of Matheny is a first inter-subnet discovery agent. And we further agree that Matheny discloses that the network manager is "designated" as a discovery agent since, as the Examiner pointed out, the network manager is established as an active discovery agent (Ans. 11 and 14).

We additionally agree with the Examiner's findings that Matheny describes the network manager (first inter-subnet discovery agent) discovering active discovery agents on neighboring subnets in the network (Ans. 14-16). We further emphasize that the discovery agents of Matheny are the active discovery agents recited in Appellant's claim as the Matheny discovery agents collect data from each discovered device and cause the collected data to be placed in a data file (FF 6). Moreover, we agree with the Examiner that the network manager discovers the active discovery agents by looping through files and once a file is found, identifying and calling a discovery agent (Ans. 1 and FF 5). Thus, we find Matheny describes "discovering, by the first inter-subnet discovery agent, active discovery agents on neighboring subnets in the network.

Lastly, we agree with the Examiner's findings that Matheny describes the network manager (the first inter-subnet discovery agent) propagating an inter-subnet resource discovery search request to the discovery agents (active discovery agents) on neighboring subnets (Ans. 16-17, FF 5, and FF 6).

Therefore, Appellant has failed to persuade us of error in the Examiner's findings that Matheny anticipates the invention as recited in claim 1 and commensurately recited in claims 11 and 24. Appellant has not presented any persuasive arguments or evidence that the Examiner erred in rejecting dependent claims 2, 4, 5, 7, 8, 12, 14, 15, 17, 18, 25, 27, 28, 30, and 31, but instead relied on the arguments set forth for claims 1, 11, and 24. Accordingly, Appellant has not shown the Examiner erred in rejecting claims 1, 2, 4, 5, 7, 8, 11, 12, 14, 15, 17, 18, 24, 25, 27, 28, 30, and 31.

ISSUE 2

35 U.S.C. § 103(a): claims 3, 6, 13, 16, 26, and 29

Appellant asserts that the invention as recited would not have been obvious over Matheny and Schlonski since Schlonski does not cure the deficiencies of Matheny which does not describe a first inter-subnet discovery agent (Br. 23-24). Since Appellants have presented no new persuasive arguments or evidence, but rely on arguments which we have addressed above, Appellant has not shown that the Examiner erred in finding the combination of Matheny and Schlonski teach or suggest the invention as recited in claims 3, 6, 13, 16, 26, and 29. Accordingly, Appellant has not shown the Examiner erred in rejecting claims 3, 6, 13, 16, 26, and 29.

ISSUE 3

35 U.S.C. § 103(a): claims 9, 10, 19, and 20

Appellant asserts the invention as recited would not have been obvious over Matheny and Dowling since Dowling does not cure the deficiencies of Matheny which does not describe a first inter-subnet discovery agent (Br. 26-27). Since Appellant has presented no new persuasive arguments or evidence but instead rely on arguments which we have addressed above, Appellant has not shown that the Examiner erred in finding the combination of Matheny and Dowling teach or suggest the invention as recited in claims 9, 10, 19, and 20. Accordingly, Appellant has not shown the Examiner erred in rejecting claims 9, 10, 19, and 20.

ISSUE 4

35 U.S.C. § 103(a): claim 21

Appellant asserts the invention as recited would not have been obvious over Branson and Dowling because the references do not teach all of the recited features of the claim (Br. 29-32). Specifically, Appellant contends that neither reference nor a combination thereof teaches “a resource discovery framework for resource discovery embodied in a computer-readable medium . . .”, wherein the framework comprises “a selection mechanism for designating the active discovery agent within each subnet”, as recited in claim 21. Appellant argues Dowling teaches a user must configure a switch to be a cluster commander, but does not disclose a selection mechanism that is part of a resource discovery framework embodied in a computer-readable medium (Br. 31-32).

The Examiner finds the preamble is not accorded any patentable weight (Ans. 20). The Examiner additionally finds Appellant does not recite

in the claim whether the selection mechanism is an automatic or manual mechanism, and thus, the selection mechanism may be either (*id.*). The Examiner then finds the configuration of a switch to be the cluster commander is done using software interfaces and/or management software resident on a computer-readable medium (*id.*). The Examiner additionally looks to the claims of Dowling as teaching that the switch discovers other devices as active (Ans. 21).

Issue 4: Has the Examiner erred in finding the combination of Branson and Dowling teach “a resource discovery framework for resource discovery embodied in a computer-readable medium . . .”, wherein the framework comprises “a selection mechanism for designating the active discovery agent within each subnet” as recited in claim 21.

FURTHER FINDINGS OF FACT (FF)

Branson

(9) Branson is related to an object oriented framework mechanism that discovers and, if desired, validates computer systems in a network.

Dowling

(10) Dowling teaches a method and system for cluster network discovery. In Dowling, a commander device maintains a database of neighbors of the entire cluster, keeping a list of these neighbors and noting which neighbors may be added to the cluster. (Abstract).

(11) A switch is designated the commander switch (col. 9, ll. 51-53). The commander switch distributes configuration information to and monitors other switches (col. 9, ll. 50-53 and col. 10, ll. 29-30). Products

known to those of ordinary skill in the art are used by the commander switch to automatically identify candidate network devices although this function may also be performed manually (col. 10, ll. 48-56).

ANALYSIS

We agree with and adopt the Examiner's findings as our own. We additionally emphasize the following points. The recited portion of the preamble that Appellant argues states a purpose - "for resource discovery." "The preamble of a claim does not limit the scope of the claim when it merely states a purpose or intended use of the invention." *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). "[W]here a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997) (citations omitted).

The recited "resource discovery framework" is taught by Branson (FF 9) as a program product (*See e.g.*, claim 21). We find embodying this framework in a computer-readable medium would have been a familiar process to one of ordinary skill in the art and would have produced a predictable variation of a program product.

"The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007). To facilitate review, this analysis should be made explicit. But it need not seek out precise teachings directed to the challenged claim's specific subject matter,

for a court can consider the inferences and creative steps a person of ordinary skill in the art would employ. *Id.* at 418.

We also agree with the Examiner that the claim does not recite how the selection mechanism is activated. We further agree with the Examiner's findings that Dowling teaches a selection mechanism (Ans. 20-21 and FF 11)). Therefore, we find Appellant has not shown the Examiner erred in finding Branson and Dowling teach "a resource discovery framework for resource discovery embodied in a computer-readable medium . . .", wherein the framework comprises "a selection mechanism for designating the active discovery agent within each subnet" and accordingly, have not shown the Examiner erred in rejecting claim 21 for obviousness over Branson and Dowling.

ISSUE 5

35 U.S.C. § 103(a): claims 22 and 23

Appellant contends the invention as recited would not have been obvious over Branson, Dowling and Das arguing that Das fails to cure the deficiencies of the combination of Branson and Dowling as asserted with respect their parent claim, independent claim 21. Since Appellant has not presented any persuasive arguments or evidence that the combination of Branson, Dowling, and Das teach the invention as recited in claims 22 and 23, Appellant has not shown the Examiner erred in finding Branson, Dowling, and Das teach the invention as recited in claims 22 and 23. Accordingly, Appellant has not shown that the Examiner erred in rejecting claims 22 and 23 for obviousness.

DECISION

The Examiner's rejection of claims 1, 2, 4, 5, 7, 8, 11, 12, 14, 15, 17, 18, 24, 25, 27, 28, 30, and 31 under 35 U.S.C. § 102(e) as being anticipated by Matheny is affirmed.

The Examiner's rejection of claims 3, 6, 13, 16, 26, and 29 under 35 U.S.C. § 103(a) as being obvious over Matheny and Dowling is affirmed.

The Examiner's rejection of claims 9, 10, 19, and 20 under 35 U.S.C. § 103(a) as being obvious over Matheny and Dowling is affirmed.

The Examiner's rejection of claim 21 under 35 U.S.C. § 103(a) as being obvious over Branson and Dowling is affirmed.

The Examiner's rejection of claims 22 and 23 under 35 U.S.C. § 103(a) as being obvious over Branson, Dowling, and Das is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv) (2009).

AFFIRMED

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